Programming Assignment – I

Deadline: 2nd April, 2021

1. Write a code to accept any DNA sequence (of varying lengths) and produce as output the corresponding RNA strand synthesized and protein strand synthesized?

Sample DNA sequence:
gtttcattataccagtttagatctatcgacagggcgttgagtgtgtgcttactcacggct
ggcatgtaggtaacagtagtggggaagcgtaacatctgaggcctgactcacatatagagt
gtcgaccaaggggtgaagcatcatacgccatacaggcccctagcgaaacgacctagtcta
aagacacacgagaatgaaacccgtggacttggttacagcgtaataatctggtcagagctg
gtccggcgctggcgatgtaccttacgccactgcaaaccggctttgcagagaacatctggg
tacattcccgtgtcatgtcaaagcaggtgattcccgcgaaaaacaattaacgacgcattt
gctattgacgaagtcctagttctccgaattgagcgggagacatatgatgtcgagactgca
ggaaccgaattatcctgtccgcagatccaatagctcacagaggtaaggggagtgtgatgg
tgccctagggtgtttgaacg

2. Write a program to generate a restriction map for a specific RE and compare your results with Mapper. Give the RE and the genomic sequence used.

3. Write a program to identify restriction recognition sites in a given DNA sequence. [Hint: Take a small sequence from the list of sequences available in ReBase Database.]

Hard copy of the code should be submitted. Execution/evaluation will be done on a specified date.